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APPLICANT : SUMITOMO METAL IND LTD;

INVENTOR : FURUYA SEIICHI; TOTANI YASUTAKA; UEKI NAOSHIGE;

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TITLE : PRODUCTION OF FORGED WHEEL MADE OF MAGNESIUM ALLOY

ABSTRACT : PURPOSE: To prevent cracking and to obtain a forged wheel excellent in mechanical strength by applying heating and forging to a stock for an Mg alloy containing Zn and Zr, exerting spinnings including reheating between the spinning stages, and then carrying out heat treatment and machining.

CONSTITUTION: A stock for an Mg alloy having a composition containing, by weight, 4.8-6.2% Zn, 0.45-5.0% Zr, and inevitable impurities is heated and subjected to preforming and finish forging. This stock is heated and subjected to primary spinning and is further reheated and subjected to secondary spinning. Subsequently, the prescribed heat treatment and machining are carried out, by which the forged wheel made of Mg alloy is obtained. This forged wheel is used for aircraft and automobile uses. It is preferable to regulate heating temp. for the stock before preforming, forging die temp. at the time of forging, and average working strain velocity to about 180-430°C, about 200-350°C, and about 10⁻¹-10°C/sec, respectively.

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